ABSTRACT

A microfluidic device that comprises a microchannel structure in which there are one, two or more flow paths (**101;201a,b;301a,a',b**) all of which comprises a porous bed I (**104,204,304**) that is common for all of the flow paths and exposes an immobilized reactant R that is capable of interacting with a solute S that passes through the bed. The characteristics are that at least one of the flow paths comprises/comprise a second porous bed II (**105,205,305**) that is placed upstream of porous bed I (**104,204,304**) and is dummy with respect to interaction with solute S but capable of interacting with a substance DS that is present in a liquid aliquot together with solute S and is capable of disturbing the result of the interaction between solute S and said immobilized reactant R. There is also disclosed a method utilizing the device and variant of the device in which the immobilized R is replaced with a generic affinity ligand L_I and/or porous bed II exposes a generic ligand L_{II} that may be different from L_I.